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EXAMINER

KADING, JOSHUA A

ART UNIT PAPER NUMBER

2661

DATE MAILED: 08/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/745,345

Applicant(s)

CHOI, MYUNG SOON

Examiner

Joshua Kading

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-12 and 14-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-12 and 14-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority based on the applications filed in The Republic of Korea on 27 December 1999 and 20 October 2000.

- 5 It is noted, however, that applicant has not filed a certified copy of the 62613/1999 and 61859/2000 applications as required by 35 U.S.C. 119(b).

Claim Objections

Claims 7 and 16 are objected to because of the following informalities:

- 10 Line 3 of claim 7 states, "header by time is slot". This doesn't make sense and it is believed applicant did not intend for the word "is" to be between "time" and "slot". Therefore, it is suggested applicant change "header by time is slot" to --header by time slot--.

- 15 Line 7 of claim 16 states, "according to the to time". This doesn't make sense and it is believed applicant did not intend for the word "to" to be between "the" and "time". Therefore, it is suggested that applicant change "according to the to time" to --according to the time--.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

20 The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 5-7, 9-12, and 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art (AAPA) in view of Östman et al. (U.S. Patent 6,483,838 B1).

5

Regarding claim 1, AAPA discloses "an ATM (Asynchronous Transfer Mode) cell transmitting device of an ATM switching system comprising:

a time slot input unit for switching a plurality of time slots (figure 1, element 1);

a packet processing unit for forming a...packet using data corresponding to the
10 switched time slots (figure 1, element 2; specification, page 1, lines 15-17);

a CAM (Contents Addressable Memory) for receiving header information of the...packet and outputting an ATM buffer number (figure 1, element 8 where VPI/VC are header information);

an ATM cell transmitting unit for storing the data of the...packet outputted from
15 the packet processing unit according to the ATM buffer number outputted from the CAM, to form an ATM cell (figure 1, element 9); and

a controlling unit for performing a general controlling operation (figure 1, element 5),

wherein the CAM allocates a same ATM buffer number to include different time
20 slots and CIDs in the same ATM buffer number (specification, page 1, lines 22-page 3, lines 1-4 where there are 256 time slots used to create the ATM cell that uses the same ATM buffer number from the CAM)."

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AAPA lacks the packet is a "CPS" or Common Part Sublayer packet. However, Östman discloses the packet is a "CPS" packet (figure 2 and figure 3 where figure 3 shows CPS packets being assembled into an ATM packet).

It would have been obvious to one with ordinary skill in the art at the time of invention to include the CPS packet with the rest of the ATM device for the purpose of multiplexing a plurality of users into one ATM channel (Östman, col. 2, lines 35-44). The motivation being that by multiplexing a plurality of users the overall throughput of the network is increased.

Regarding claim 5, AAPA and Östman disclose the device of claim 1. AAPA lacks "the header information of the CPS packet refers to a time slot number and a channel identifier (CID)." However, Östman further discloses "the header information of the CPS packet refers to a time slot number and a channel identifier (CID) (figure 2, where the header clearly contains a CID or channel identifier)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the CID with the device of claim 1 for the same reasons and motivation as in claim 1.

Regarding claim 6, AAPA and Östman disclose the device of claim 1. Östman lacks "a time switch for switching the plurality of time slots; an input buffer unit for storing the data corresponding to the plurality of time slots outputted from the time switch..." However, AAPA further discloses "a time switch for switching a plurality of time slots (figure 1, element 1); an input buffer unit for storing the plurality of time slot

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data outputted from the time switch (figure 1, element 3)..." AAPA however, lacks "a multiplexer for selectively outputting the time slot data stored in the input to buffer unit."

Although AAPA lacks the multiplexer, Östman further discloses "a multiplexer for selectively outputting the time slot data stored in the input to buffer unit (col. 2, lines 35-

5 44 where the act of multiplexing is done by a multiplexer)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the time switch, the buffer, and the multiplexer with the device of claim 1 for the same reasons and motivation as in claim 1.

10 Regarding claims 7 and 12, AAPA and Östman disclose the device of claim 1. Östman lacks "a packet header storing unit for receiving a CPS packet header by time slot from the controlling unit and storing the same; and a CPS packet buffer for storing the CPS packet header outputted from the packet header storing unit and the time slot data outputted from the multiplexer, to form a CPS packet." However, AAPA discloses

15 "a packet header storing unit for receiving a CPS packet header by time slot from the controlling unit and storing the same (figure 1, element 8; specification, page 3, lines 9-13); and a CPS packet buffer for storing the CPS packet header outputted from the packet header storing unit and the time slot data outputted from the multiplexer, to form a CPS packet (figure 1, element 6; specification, page 3, lines 14-16)." It would have

20 been obvious to one with ordinary skill in the art at the time of invention to include the packet header storing unit and the CPS packet buffer with the device of claim 1 for the same reasons and motivation as in claim 1.

Regarding claim 9, AAPA and Östman disclose the device of claim 1. Östman lacks "an ATM buffer unit for storing the CPS packet data outputted from the packet processing unit in a plurality of ATM buffers according to the ATM buffer number of the CAM; an ATM header generating unit for storing an ATM header; and a transmitting buffer for combining the outputs of the ATM buffer unit and 5 of the ATM header generating unit, to form an ATM cell." However, AAPA further discloses "an ATM buffer unit for storing the CPS packet data outputted from the packet processing unit in a plurality of ATM buffers according to the ATM buffer number of the CAM (figure 1, 10 element 6; specification, page 3, lines 14-16); an ATM header generating unit for storing an ATM header (figure 1, element 8; specification, page 3, lines 9-13); and a transmitting buffer for combining the outputs of the ATM buffer unit and 5 of the ATM header generating unit, to form an ATM cell (figure 1, element 9)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the ATM 15 buffer, the ATM header generating unit, and transmitting buffer with the device of claim 1 for the same reasons and motivation as in claim 1.

Regarding claim 16, AAPA discloses "an ATM (Asynchronous Transfer Mode) cell transmitting device of a switching system comprising:

20 an ATM cell receiving unit for extracting a...packet from a received ATM cell and storing it according to an ATM buffer number (figure 1, elements 1 and 2);

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a packet processing unit for converting header information of the extracted...packet and the ATM buffer number outputted from the ATM cell receiving unit into a time slot number and storing a payload of the...packet according to the time slot number (figure 1, element 7);

5 a time slot output unit for demultiplexing the payload of the CPS packet outputted from the packet processing unit to a plurality of time slots and outputting the same (figure 1, elements 1 and 2; specification, page 1, lines 15-17),

wherein a single ATM buffer number includes multiple time slot numbers and CIDs (Channel Identifiers) (specification, page 1, lines 22-page 3, lines 1-4 where there
10 are 256 time slots used to create the ATM cell that uses the same ATM buffer number from the CAM)."

AAPA lacks the packet is a "CPS" packet and "...a time slot output unit for demultiplexing the payload of the CPS packet outputted from the packet processing unit to a plurality of time slots and outputting the same."

15 However, Östman discloses the "CPS" packet (figure 2 and figure 3 where figure 3 shows CPS packets being assembled into an ATM packet).

It would have been obvious to one with ordinary skill in the art at the time of invention to include the CPS packet with the rest of the ATM device for the purpose of multiplexing a plurality of users into one ATM channel (Östman, col. 2, lines 35-44). The
20 motivation being that by multiplexing a plurality of users the overall throughput of the network is increased.

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Regarding claim 17, AAPA and Östman disclose the device of claim 16. AAPA lacks "the header information of the CPS packet refers to a time slot number and a channel identifier (CID)." However, Östman further discloses "the header information of the CPS packet refers to a time slot number and a channel identifier (CID) (figure 2, where the header clearly contains a CID or channel identifier)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the CID with the device of claim 16 for the same reasons and motivation as in claim 16.

Regarding claim 18, AAPA and Östman disclose the device of claim 16. Östman lacks "the ATM buffer number is determined by the VPI/VCI included in the header of the ATM cell." However, AAPA further discloses "the ATM buffer number is determined by the VPI/VCI included in the header of the ATM cell (figure 1, the path between elements 7 and 8 shows the slot number and VPI/VCI; specification, page 1, lines 22-25 where the time slot number corresponds to the ATM buffer number)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the ATM buffer number being determined by the VPI/VCI with the device of claim 16 for the same reasons and motivation as in claim 16.

Regarding claim 19, AAPA and Östman disclose the device of claim 16. Östman lacks "a receiving buffer for storing the ATM cell received through the ATM network; a cell segmenting unit for reading the ATM cell from the receiving buffer, extracting a CPS packet and outputting VPI/VCI information of the ATM cell header; a first CAM for

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outputting an ATM buffer number corresponding to the output VPI/VCI of the cell segmenting unit; and an ATM buffer unit for storing the CPS packet outputted from the cell segmenting unit according to the ATM buffer number outputted from the first CAM.”

However, AAPA further discloses “a receiving buffer for storing the ATM cell
5 received through the ATM network (figure 1, element 9; specification, page 2, lines 4-7);
a cell segmenting unit for reading the ATM cell from the receiving buffer, extracting a
CPS packet and outputting VPI/VCI information of the ATM cell header (figure 1,
element 2; specification, page 1, lines 14-17); a first CAM for outputting an ATM buffer
number corresponding to the output VPI/VCI of the cell segmenting unit (figure 1,
10 element 8; specification, page 1, lines 22-25); and an ATM buffer unit for storing the
CPS packet outputted from the cell segmenting unit according to the ATM buffer
number outputted from the first CAM (figure 1, element 6; specification, page 2, lines 4-
5).”

It would have been obvious to one with ordinary skill in the art at the time of
15 invention to include the receiving buffer, the cell segmenter, the CAM, and another ATM
buffer with the device of claim 16 for the same reasons and motivation as in claim 16.

Regarding claim 20, AAPA and Östman disclose the device of claim 19. Östman
lacks “the ATM buffer unit having a small capacity of N number of ATM buffers, for
20 outputting an ATM buffer number and the channel identifier of the CPS packet header to
the packet processing unit as the CPS packet is wholly completed.” However, AAPA
further discloses “the ATM buffer unit having a small capacity of N number of ATM

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buffers, for outputting an ATM buffer number and the channel identifier of the CPS packet header to the packet processing unit as the CPS packet is wholly completed (figure 1, elements 7 and 8; specification, page 2, lines 24-25 and page 3, line 1; it should also be noted the size of the buffer is of a capacity N where N is the size of the 5 buffer)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the buffer with the device of claim 19 for the same reasons and motivation as in claim 19.

Regarding claim 21, as it is understood at this time, AAPA and Östman disclose 10 the device of claim 16. Östman lacks "a second CAM for outputting a time slot number corresponding to the ATM buffer number inputted from the ATM receiving unit; and a CPS packet buffer unit for storing the CPS packet payload outputted from the ATM receiving unit according to the time slot number outputted from the second CAM."

However, AAPA further discloses "a second CAM for outputting a time slot number 15 corresponding to the ATM buffer number inputted from the ATM receiving unit (figure 1, element 8; specification, page 2, lines 22-25 and page 3, lines 1-4); and a CPS packet buffer unit for storing the CPS packet payload outputted from the ATM receiving unit according to the time slot number outputted from the second CAM (figure 1, element 6; specification, page 3, lines 14-16)." It would have been obvious to one with ordinary skill 20 in the art at the time of invention to include the CAM with the device of claim 16 for the same reasons and motivation as in claim 16.

Regarding claim 22, AAPA and Östman disclose the device of claim 16. Östman lacks "a demultiplexer for receiving the CPS packet payload from the CPS packet buffer unit and demultiplexing it to a plurality of time slots; an output buffer unit having N number of small capacity of buffers, for storing the time slot data demultiplexed by the demultiplexer; and a time switch for switching the plurality of time slots stored in the output buffer unit." However, AAPA further discloses "a demultiplexer for receiving the CPS packet payload from the CPS packet buffer unit and demultiplexing it to a plurality of time slots (figure 1, element 2; specification, page 1, lines 14-17 where by segmentation the ATM cell into a plurality of time slots is the functional equivalent of demultiplexing the packet); an output buffer unit having N number of small capacity of buffers, for storing the time slot data demultiplexed by the demultiplexer (figure 1, element 6; specification, page 2, lines 4-5); and a time switch for switching the plurality of time slots stored in the output buffer unit (figure 1, element 1)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the demultiplexer, buffer, and the switch with the device of claim 16 for the same reasons and motivation as in claim 16.

Claims 2-4 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Östman et al. as applied to claim 1 above (for claims 2-4 only), and further in view of Stacey et al. (U.S. Patent 6,434,154 B1).

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Regarding claim 2, AAPA and Östman disclose the device of claim 1. AAPA and Östman lack “a timer for setting an ATM cell transmitting time of the ATM cell transmitting unit.” However, Stacey discloses “a timer for setting an ATM cell transmitting time of the ATM cell transmitting unit (figure 7 where the “Upstream TDMA mini-slots” are the same as having a “timer” for each ATM cell, that is to say in a TDMA stream, each cell gets a certain amount of time per cycle, i.e. each cell is timed each cycle).” It would have been obvious to one with ordinary skill in the art at the time of invention to include the timing of each cell with the device of claim 1 for the purpose of transmitting a plurality of data from different users. The motivation being to reduce the overall packet transmission delay (Stacey, col. 3, lines 38-42).

Regarding claim 3, AAPA, Östman, and Stacey disclose the device of claim 2. AAPA and Östman lack “the ATM cell transmitting unit receives a CPS packet data and an ATM header for a predetermined time as set in the timer and outputs an ATM cell.” However, Stacey further discloses “the ATM cell transmitting unit receives a CPS packet data and an ATM header for a predetermined time as set in the timer and outputs an ATM cell (figure 7 where the “Upstream TDMA mini-slots” are the same as having a “timer” for each ATM cell, that is to say in a TDMA stream, each cell gets a certain amount of time per cycle during the transmission and receiving of data, i.e. each cell is timed each cycle).” It would have been obvious to one with ordinary skill in the art at the time of invention to include the timing with the device of claim 2 for the same reasons and motivation as in claim 2.

Regarding claim 4, AAPA, Östman, and Stacey disclose the device of claim 3.

AAPA and Stacey lack "the ATM cell transmitting unit sets CPS packet data which is not received yet as '0' and completes an ATM cell, in case that CPS packet data is not

5 wholly received for a predetermined time as set in the timer." However, Östman

discloses "the ATM cell transmitting unit sets CPS packet data which is not received yet as '0' and completes an ATM cell, in case that CPS packet data is not wholly received

for a predetermined time as set in the timer (figure 3, element 28 where padding

achieves the same goal as inserting '0s' into the ATM cell, i.e. if the CPS packet is not

10 big enough to fill the ATM cell, the ATM cell must having padding or in applicant's case

'0s' used to fill the rest of the cell)." It would have been obvious to one with ordinary skill

in the art at the time of invention to include the '0s' with the device of claim 3 for the

same reasons and motivation as in claim 3.

15 Regarding claim 10, AAPA discloses "an ATM (Asynchronous Transfer Mode) cell transmitting device comprising:

 a time slot input unit for switching a plurality of time slots (figure 1, element 1);

 a packet processing unit for receiving data corresponding to the switched time slots and forming a...packet (figure 1, element 2; specification, page 1, lines 15-17);

20 a CAM (Contents Addressable Memory) for outputting ATM buffer numbers for the time slots and a CID (Channel Identifier) inputted from the packet processing unit (figure 1, element 8 where VPI/VCI are header information);

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an ATM transmitting unit for storing the data of the...packet outputted from the packet processing unit according to the ATM buffer number outputted is from the CAM, to form an ATM cell (figure 1, element 9);

5 a controlling unit for performing a general controlling operation (figure 1, element 5),

wherein the CAM includes a look-up table having different time slot numbers and CIDs allocated to a same ATM buffer number such that a plurality of time slots are multiplexed in the same ATM buffer number (specification, page 1, lines 22-page 3, lines 1-4 where there are 256 time slots used to create the ATM cell that uses the same
10 ATM buffer number from the CAM)."

AAPA lacks the packets are "CPS" packets and "a timer for setting an ATM cell transmitting time of the ATM cell transmitting unit..."

However, Östman discloses the "CPS" packets (figure 2 and figure 3 where figure 3 shows CPS packets being assembled into an ATM packet) and Stacey
15 discloses "a timer for setting an ATM cell transmitting time of the ATM cell transmitting unit (figure 7 where the "Upstream TDMA mini-slots" are the same as having a "timer" for each ATM cell, that is to say in a TDMA stream, each cell gets a certain amount of time per cycle, i.e. each cell is timed each cycle)..."

It would have been obvious to one with ordinary skill in the art at the time of
20 invention to include the CPS packets and the timer with the rest of the device for the purpose of multiplexing a plurality of users into one ATM channel (Östman, col. 2, lines

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35-44). The motivation being that by multiplexing a plurality of users using a timer, the overall packet transmission delay is reduced (Stacey, col. 3, lines 38-42).

Regarding claim 11, AAPA, Östman, and Stacey disclose the device of claim 10.

5 Östman and Stacey lack "a time switch for switching a plurality of time slots; an input buffer unit for storing the plurality of time slot data outputted from the time switch..."

However, AAPA further discloses "a time switch for switching a plurality of time slots (figure 1, element 1); an input buffer unit for storing the plurality of time slot data outputted from the time switch (figure 1, element 3)..." AAPA however, lacks "a

10 multiplexer for selectively outputting the time slot data stored in the input to buffer unit."

Although AAPA lacks the multiplexer, Östman further discloses "a multiplexer for selectively outputting the time slot data stored in the input to buffer unit (col. 2, lines 35-44 where the act of multiplexing is done by a multiplexer)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the time switch, the
15 buffer, and the multiplexer with the device of claim 10 for the same reasons and motivation as in claim 10.

Regarding claim 14, AAPA, Östman, and Stacey disclose the device of claim 10.

AAPA and Stacey lack "the ATM cell transmitting unit sets CPS packet data which is not
20 received yet as '0' and completes an ATM cell, in case that CPS packet data is not wholly received for a predetermined time as set in the timer." However, Östman discloses "the ATM cell transmitting unit sets CPS packet data which is not received yet

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as '0' and completes an ATM cell, in case that CPS packet data is not wholly received for a predetermined time as set in the timer (figure 3, element 28 where padding achieves the same goal as inserting '0s' into the ATM cell, i.e. if the CPS packet is not big enough to fill the ATM cell, the ATM cell must having padding or in applicant's case
5 '0s' used to fill the rest of the cell)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the '0s' with the device of claim 10 for the same reasons and motivation as in claim 10.

Regarding claim 15, AAPA, Östman, and Stacey disclose the device of claim 10.

10 Östman and Stacey lack "an ATM buffer unit for storing the CPS packet data outputted from the packet processing unit in a plurality of ATM buffers according to the ATM buffer number of the CAM; an ATM header generating unit for storing an ATM header; and a transmitting buffer for combining the outputs of the ATM buffer unit and 5 of the ATM header generating unit, to form an ATM cell." However, AAPA further discloses "an ATM
15 buffer unit for storing the CPS packet data outputted from the packet processing unit in a plurality of ATM buffers according to the ATM buffer number of the CAM (figure 1, element 6; specification, page 3, lines 14-16); an ATM header generating unit for storing an ATM header (figure 1, element 8; specification, page 3, lines 9-13); and a
20 transmitting buffer for combining the outputs of the ATM buffer unit and 5 of the ATM header generating unit, to form an ATM cell (figure 1, element 9)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the ATM

buffer, the ATM header generating unit, and transmitting buffer with the device of claim 10 for the same reasons and motivation as in claim 10.

Response to Arguments

5 The 35 U.S.C. 112 rejections and objections of the previous Office Action are withdrawn in light of applicant's amended claims.

Applicant's arguments filed 10 June 2004 have been fully considered but they are not persuasive.

10 Applicant argues that the prior art used to reject the limitations of claims 8 and 13 (now included in independent claims 1, 10, and 16) are insufficient because the related art uses AAL1 which, only allocates one time slot to one VPI/VC1 and thus reduces bandwidth efficiency and degrades the network. Further, applicant argues that the CAM does not "allocate" a buffer number. Examiner respectfully disagrees.

15 As stated in the claim "the CAM allocates a same ATM buffer number to include different time slots and CIDs in the same ATM buffer number". This is fully supported by AAPA, see page 1, lines 22-page 3, lines 1-4. There are clearly time slots (256 to be exact) that are used to create the outgoing ATM cell from buffer 9. There is no distinction made in the claim language as to what AAL layer is performing the ATM cell
20 assembly. That taken with the fact that there is a plurality of time slots, AAPA fully reads on applicant's claims.

As far as the CAM not "allocating" a buffer number, AAPA also reads on this aspect of applicant's invention. Page 1, lines 22-25 clearly state the CAM allocates, or stores for later use, a VPI/VCI number which is taken to be the ATM buffer number. Since there is no distinction made in the claims as to what an ATM buffer number consists of, applicant's claims are given the broadest interpretation possible. As such AAPA reads on these claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (703) 305-0342. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joshua Kading
Examiner
Art Unit 2661

August 13, 2004



KENNETH VANDERPUYE
PRIMARY EXAMINER